

Jun 6th, 2:10 PM - 2:30 PM

## Session A5 - NOAA's Efforts to Restore River Herring in the Northeast U.S.

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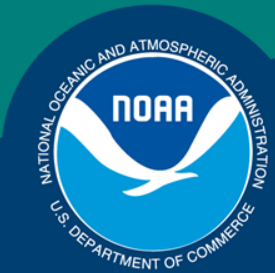
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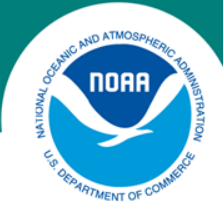
*Science, Service, Stewardship*



## **NOAA's River Herring Restoration Activities in the Northeast Region**

John G. Catena, Northeast Regional Supervisor,  
NOAA Restoration Center, Gloucester, MA

**NOAA  
FISHERIES  
SERVICE**



## Restoration Center Program Goals

- To rebuild habitat lost to impacts such as development, oil spills, erosion and other causes of degradation to contribute to sustainable fish populations
- To increase public stewardship by engaging local citizens in habitat restoration





## **NOAA's Authorities to Protect and Restore River Herring**

- Magnuson Stevens Act
- Fish and Wildlife Coordination Act
- Endangered Species Act
- Federal Power Act



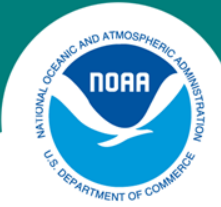


## NOAA's Community-based Restoration Program

- Funds projects that restore habitats of NOAA trust resources
- Ecological and socio-economic benefits
- National and regional competitive grants processes
- Funding AND technical expertise
- Leverage through collaboration stewardship and greater local awareness

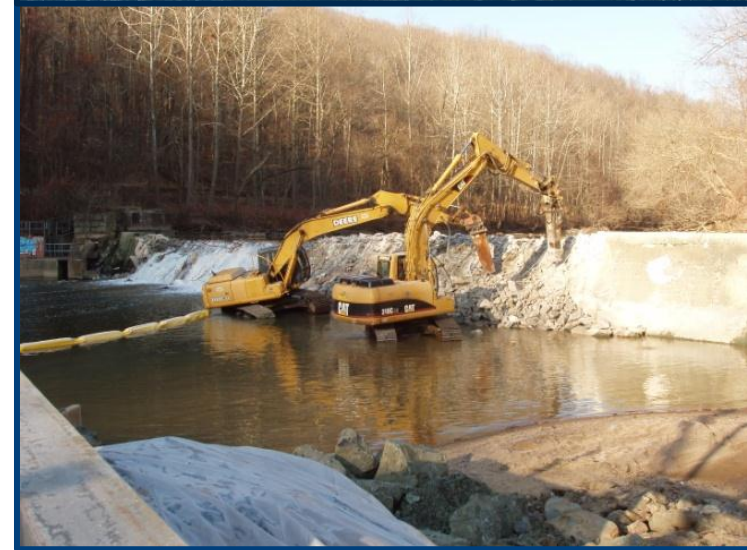






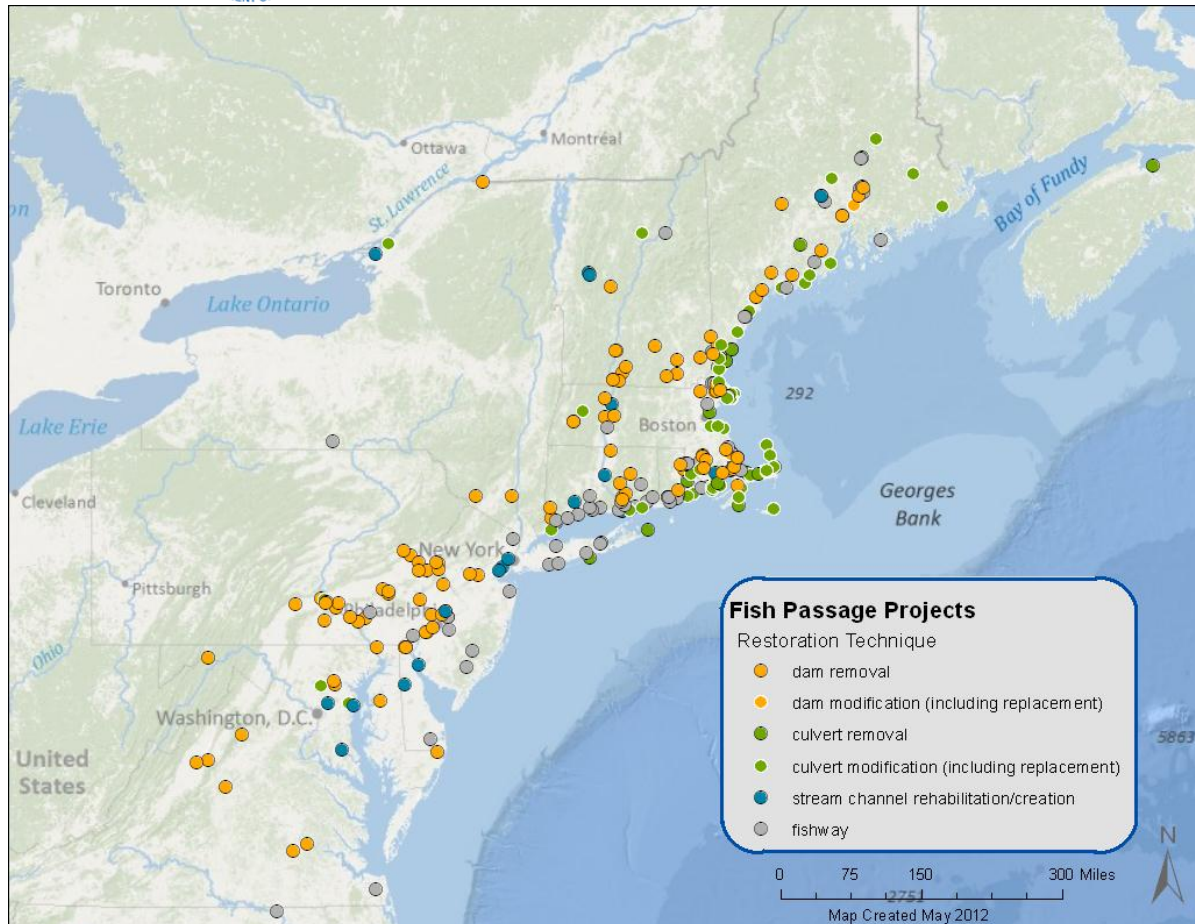
## Regional Priority Restoration Types

- Diadromous fish restoration
  - Target species
    - River herring
    - American shad
    - Atlantic salmon in Maine
    - American eel
  - Dam removal and fish passage
    - Restoring access to spawning and rearing habitat
    - Removing local liabilities

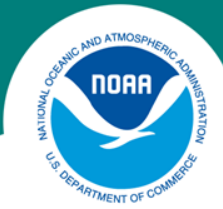




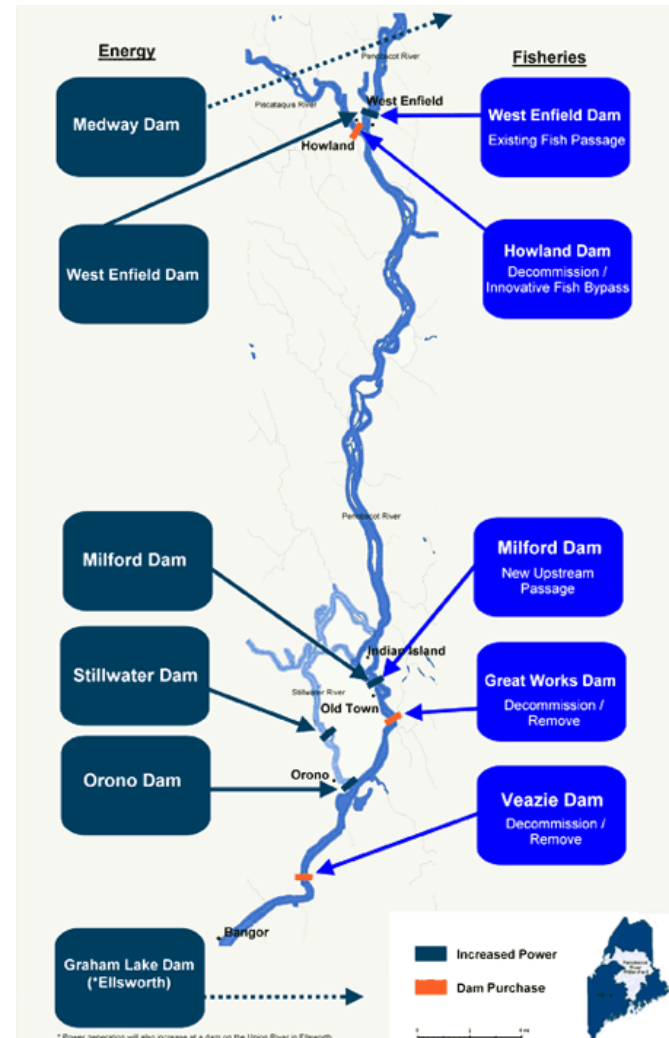
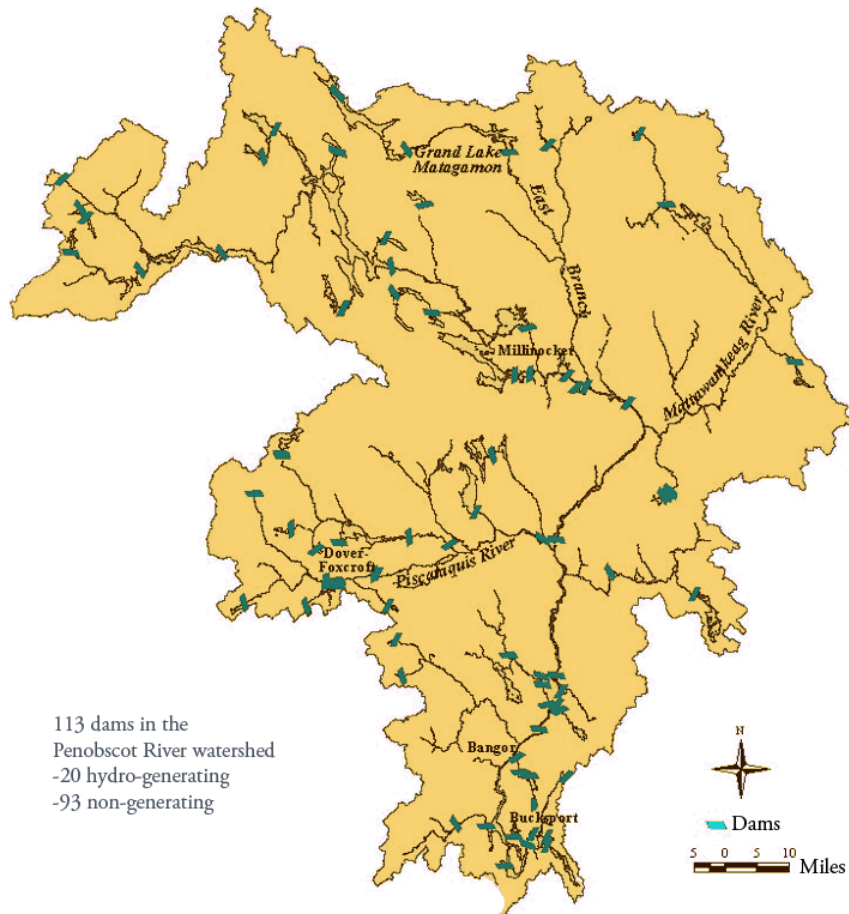
## Funded Restoration Projects in the Northeast



- 244 fish passage projects – completed
- Completed ~ 1,300 stream miles
- Completed ~ 7200 acres of spawning habitat
- 65 + fish projects planned
- Est. ~ 1,500 stream miles planned
- Est. ~ 10,000 acres of spawning habitat planned



# Penobscot River Restoration, ME







## Penobscot River Restoration, ME

- \$20 million NOAA investment to date
- Veazie, Great Works and Howland dams
- Great Works scheduled for removal June 2012
- Penobscot River Restoration Trust
- 11 diadromous species will benefit
- Enhance access to 1,000 river miles

Veazie



Great Works



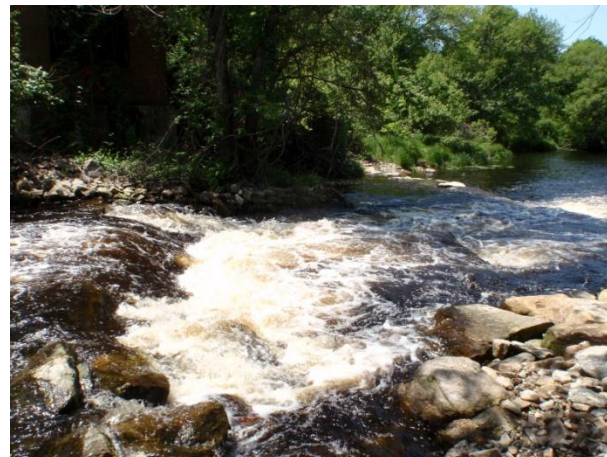
Howland





## Pawcatuck River Restoration

- ARRA funded project - \$3.2 million
- Lower Shannock Falls, Horseshoe Falls, and Kenyon dams
- Wood-Pawcatuck River Watershed Association
- Potential for 21 stream miles and 1043 acres of alewife spawning habitat
- Target species include American eel, alewife, blueback herring, American shad





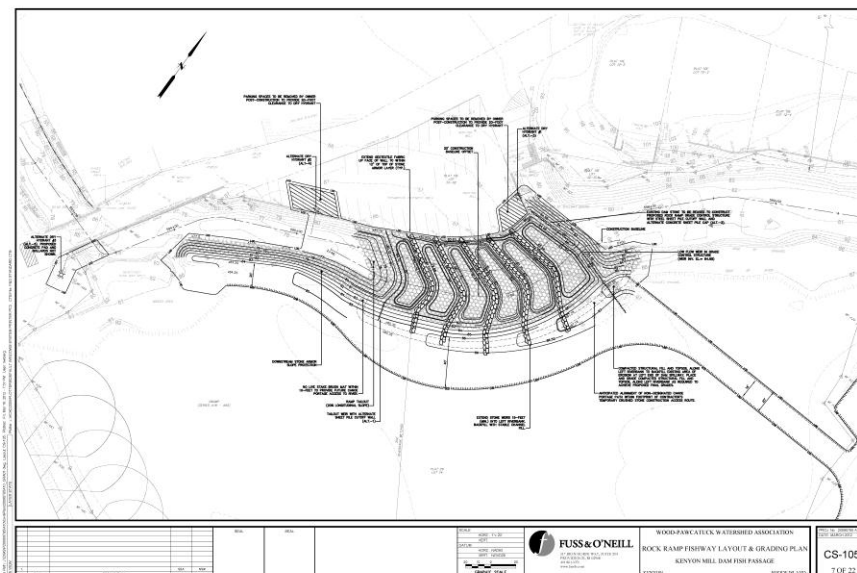
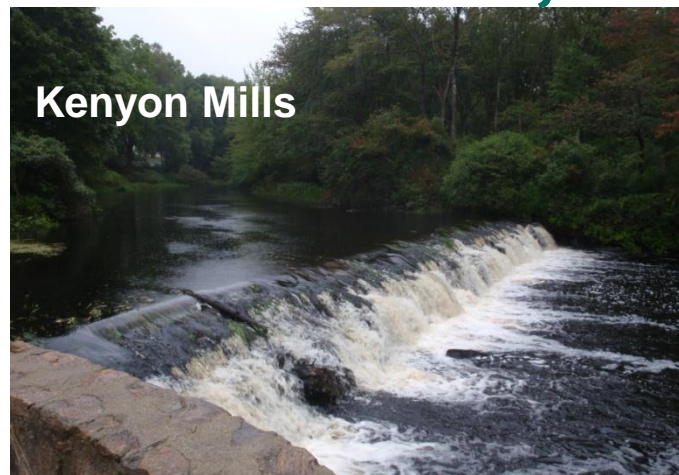


## Pawcatuck River Restoration, RI

Lower Shannock Falls

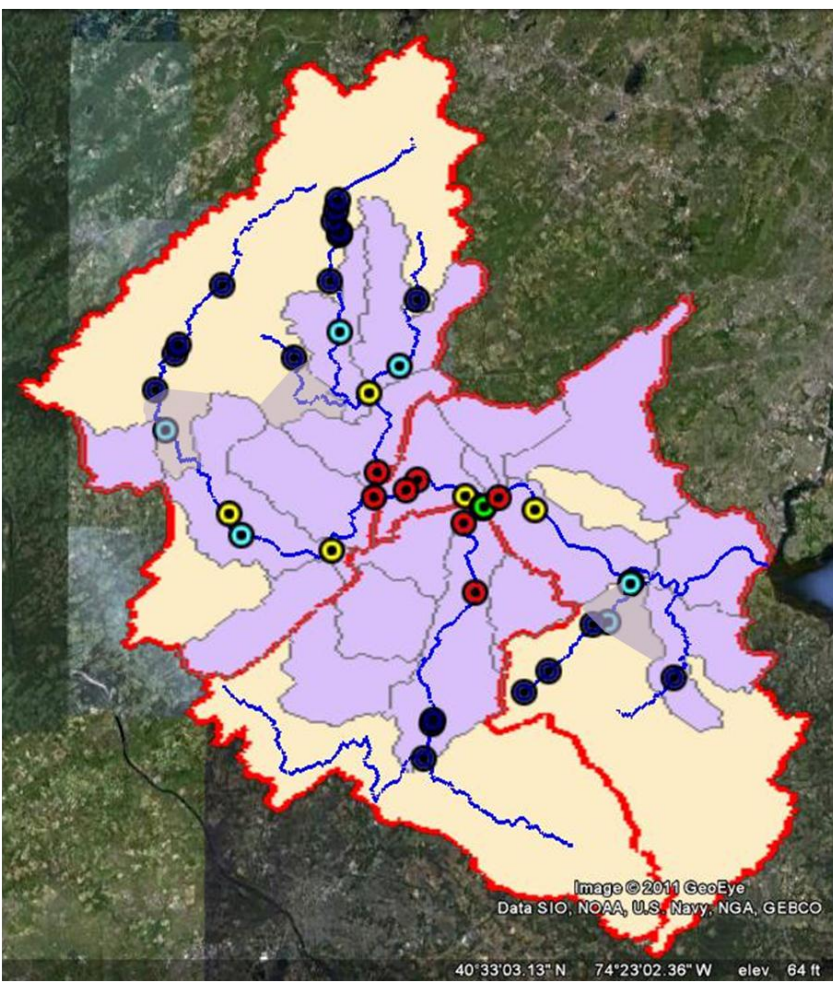


Kenyon Mills





## Raritan River Fish Passage Initiative, NJ



- Non-Starters
- Removed or Breached prior to the Initiative
- Fish Ladders
- Phase 1
- Phase 2

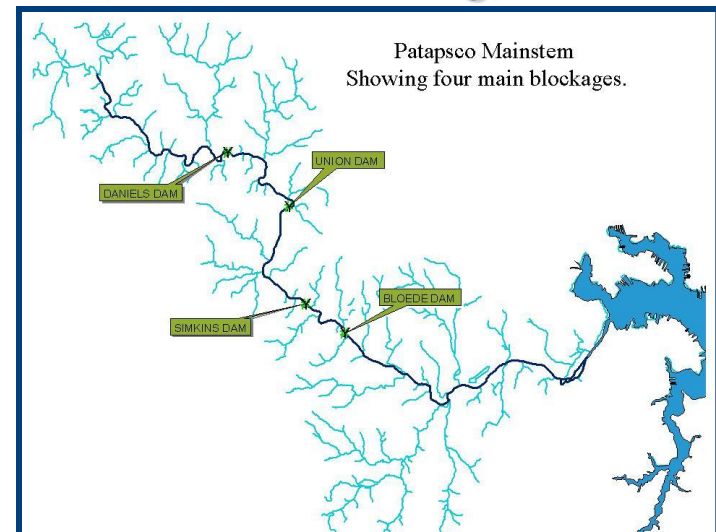
- Calco Dam (Raritan) REMOVED
- Island Farm Weir Fish Ladder(Raritan)
- Nevius Street Dam (Raritan) -- 2013 removal
- Roberts Street Dam (Raritan) – 2012 removal
- Head Gates Dam (Raritan) - FS
- Weston Causeway Dam (Millstone) - Design
- Blackwell Mills Dam (Millstone) - Design
- Weston Pond Weir (Lawrence Brook) - FS
- Horseshoe Dam (Lawrence Brook) - FS





## Patapsco River Restoration, MD

- ARRA funded project \$4 million
- Union, Simkins, and Bloede dam removals
- American Rivers and MD DNR partners
- Potential for 25 mainstem miles, 374 tributary miles
- Target species include American eel, alewife, blueback herring, American shad

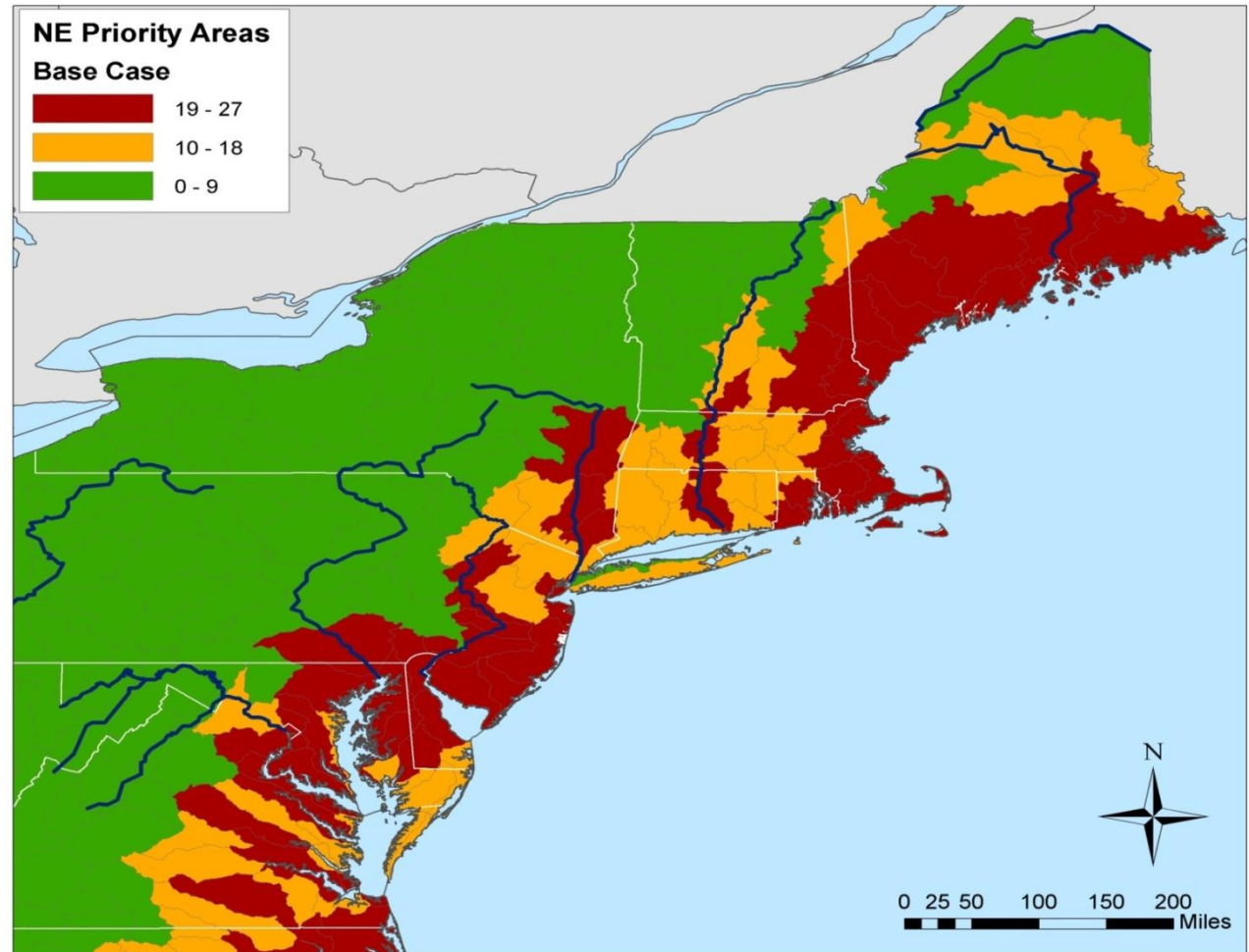




## Northeast Fish Passage Prioritization

**Goal:** to identify priority watersheds throughout the region to focus our fish passage projects.

- Developed list of priority species among the 14 diadromous species in the region
- Mapped co-occurrence and ranked

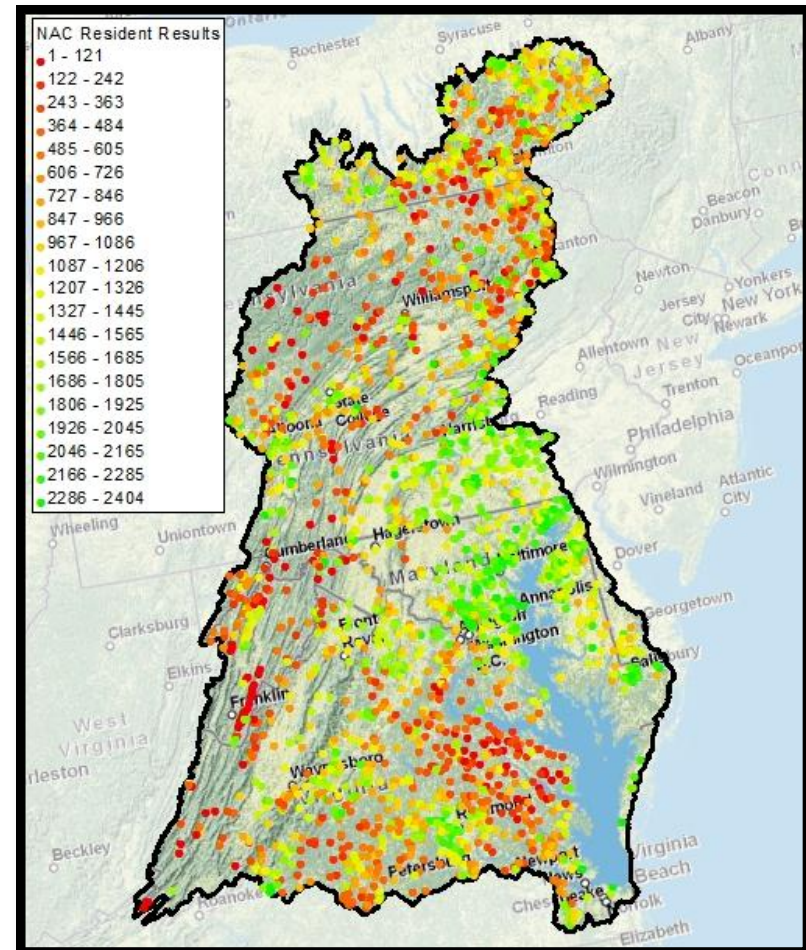






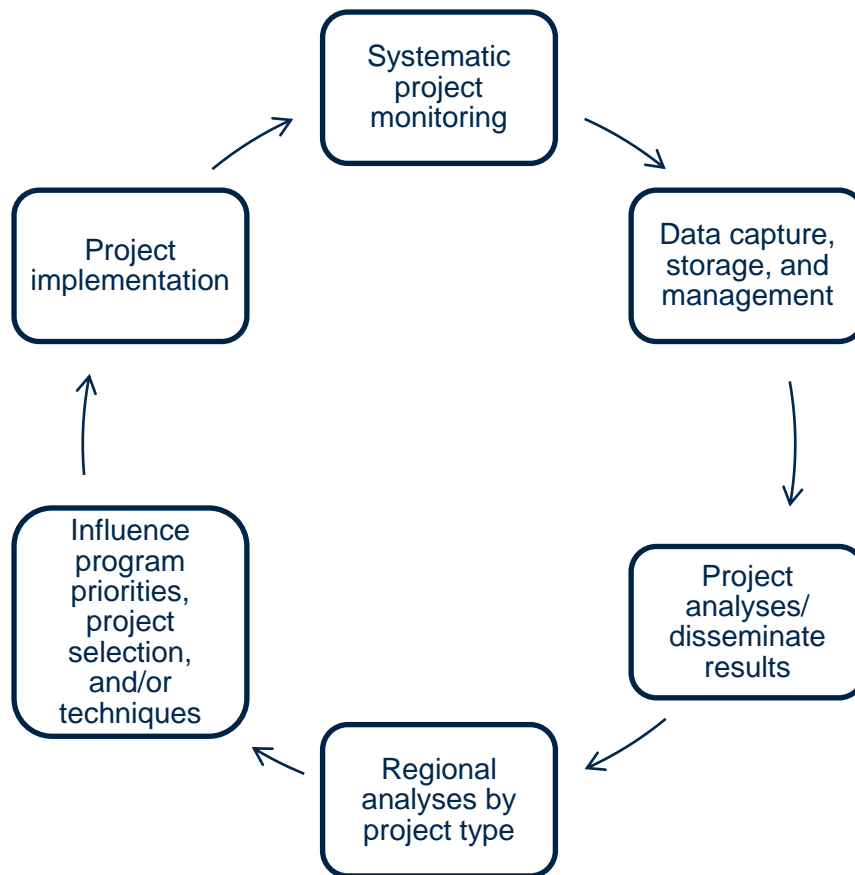
## Regional Prioritization – Chesapeake Bay Fish Blockage Prioritization

- ~ 5,000 manmade blockages still exist in the watershed
- Federal, state and non-profits working together to prioritize fish blockage removals
- Ecological, cultural and cost criteria developed to rank projects within watershed
- Results in a list of priority projects and priority watersheds
- Web-based application for public use
- Allows user to work at a different scale and to create custom weight scenarios





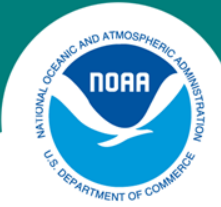
## Regional Integrated Monitoring Program



### Goals:

- To assess project quality
- To assess ecological effectiveness
- To improve future project implementation
- To address questions of regional significance and measure regional performance
- Develop information base to drive future priorities





## Endangered Species Act Petition

- Natural Resources Defense Council—August 2011
- Petition to list both species of river herring as threatened and designate critical habitat
- Petition notes dramatic declines in coast-wide abundance
- Fishing-related mortality, water pollution, dams, dredging and global warming were identified in the petition as primary threats



**Alewife**



**Blueback  
Herring**



## ESA Status Review Process

- Positive 90 day finding kicked off listing decision process – listing decision expected later this year.
- Workshops scheduled for June and July to:
  - Assess stock structure issues (June 22 – NMFS Gloucester)
  - Assess risk of extinction (July 10 – EPA Boston)
  - Assess impacts of climate change (July 18-19 – NMFS Gloucester)
- Evaluate results of workshops, recently completed stock assessment, and other relevant information
- [http://www.nero.noaa.gov/prot\\_res/CandidateSpeciesProgram/RiverHerringSOC.htm](http://www.nero.noaa.gov/prot_res/CandidateSpeciesProgram/RiverHerringSOC.htm)



## Federal Fishery Management Issues: New England and Mid-Atlantic Fishery Management Council Actions

- Bycatch Reduction Measures – decision June 2012
  - Squid, Mackerel, Butterfish, and Atlantic herring fisheries
    - Time and area closures
    - Catch caps for river herring
- “Stocks in the fishery” – decision June 2012
  - Would kick off a Federal fishery management plan for river herring and American shad if approved.





**RESTORATION CENTER**

<http://www.restoration.noaa.gov/>

